

IN THE CLAIMS:

Please add new Claim 35 and amend Claims 1, 2, 9, 13, 19, and 21, as indicated below. The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (currently amended) A computer-readable storage medium storing control logic for causing a computer to implement a method of offering a service, described in a service description document, in a communication network, said method comprising:

extracting, from the service description document, a first abstract part adapted to describe at least one message exchanged over the communication network when the service is implemented, wherein the first abstract part includes a description of abstract constraints associated with a binary multimedia document;

extracting, from the service description document, a second concrete part adapted to describe information relating to transmission of the messages over the communication network;

extracting a content description depending on the abstract constraints associated with the multimedia document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

transmitting an error message, if the content description does not satisfy the abstract constraints.

2. (currently amended) A computer-readable storage medium according to claim 1, wherein said description of the abstract constraints is represented using the semantics of a description language of a content of the binary multimedia document.
3. (previously presented) A computer-readable storage medium according to one of Claims 1 to 2, wherein said description of abstract constraints is represented using the semantics defined by a Moving Picture Experts Group 7 (MPEG7) standard.
4. (previously presented) A computer-readable storage medium according to one of Claims 1 to 2, wherein said description of abstract constraints is represented in a mark-up language of the Extensible Mark-up Language (XML) type.
5. (previously presented) A computer-readable medium according to one of Claims 1 to 2, characterized in that said description of abstract constraints is represented in a schema language, and includes tags defined using the semantics of a Moving Picture Experts Group 7 (MPEG7) standard.
6. (previously presented) A computer-readable storage medium according to one of Claims 1 to 2, wherein said description of abstract constraints is represented in a description language of a content of the multimedia document, tags being adapted to integrate directly or by reference attributes represented in a schema mark-up language.

7. (previously presented) A computer-readable storage medium in accordance with Claim 6, wherein the description language of the content of the multimedia document is defined according to a Moving Picture Experts Group 7 (MPEG7) standard.

8. (previously presented) A computer-readable storage medium according to one of Claims 1 to 2, wherein said description of abstract constraints is represented in a schema language adapted to define a set of minimum constraints.

9. (currently amended) A computer-readable storage medium according to one of Claims 1 to 2, wherein said description of abstract constraints is inserted in a sub-part of said first abstract part, and is adapted to describe an abstract structure of the messages exchanged.

10. (previously presented) A computer-readable storage medium according to Claim 9, wherein said first abstract part comprises a second sub-part adapted to declare at least one elementary message pointing to said description of the abstract constraints.

11. (previously presented) A computer-readable storage medium according to Claim 10, wherein the elementary message is associated with an attribute adapted to specify that the message comprises a binary multimedia content type.

12. (currently amended) A method of producing a request for a service offered by a server in a communication network, wherein the service is described in a service description document, the method comprising:

reading the service description document;

selecting a first abstract part of the service description document, wherein the first abstract part is adapted to describe at least one message exchanged over the communication network when an operation associated with the service is implemented;

extracting a description of abstract constraints, wherein the description of the abstract constraints is associated with a binary multimedia document;

selecting the binary multimedia document according to the description of the abstract constraints;

producing a request for the server in the communication network, wherein the request includes the binary multimedia document selected;

extracting a content description depending on the abstract constraints associated with the multimedia document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

transmitting the request to the server, if the content description satisfies the abstract constraints.

13. (currently amended) A method of validating a multimedia document when a service offered by a server in a communication network is implemented, wherein the service is associated with a service description document, the method comprising:

acquiring the multimedia document;

extracting a description of abstract constraints associated with a binary multimedia document from the service description document;

extracting a content description depending on the abstract constraints associated with the multimedia document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

implementing the service on the multimedia document, if the content description satisfies the abstract constraints.

14. (previously presented) The method according to claim 13, wherein the description of the abstract constraints is represented in a language describing a content of the multimedia document.

15. (previously presented) The method according to one of claims 13 or 14, wherein the language describing a content of the multimedia document is defined under a Moving Picture Experts Group 7 (MPEG-7) standard.

16. (previously presented) The method according to one of claims 13 or 14, wherein, at said content description extraction step, a Moving Picture Experts Group 7 (MPEG-7) description of the multimedia document inserted in the multimedia document is extracted.

17. (previously presented) The method according to one of claims 13 or 14, wherein the method is implemented during a step of selecting the multimedia document to be inserted in a message exchanged during implementation of the service offered by the server in the communication network.

18. (previously presented) The method according to one of claims 13 or 14, wherein the method is implemented during a step of validating a request received by the server in the communication network for implementing the service described in the service description document.

19. (currently amended) A device for producing a request for a service offered by a server in a communication network, wherein the service is described in a service description document, the device comprising:

means for reading the service description document;

means for selecting a first abstract part of the service description document,

wherein the first abstract part is adapted to describe at least one message exchanged over the communication network when an operation associated with the service is implemented;

means for extracting a description of abstract constraints associated with a binary multimedia document from the service description document;

means for selecting the binary multimedia document according to the description of the abstract constraints;

means for extracting a content description depending on the abstract constraints associated with the multimedia document;

means for comparing the content description and the description of the abstract constraints extracted from the service description document;

means for producing a request for the service offered by the server in the communication network, if the content description satisfies the abstract constraints, wherein the request includes the binary multimedia document selected.

20. (previously presented) The device according to claim 19, further comprising:

a microprocessor;

a read only memory adapted to store a program for producing the request for the service; and

a random access memory including registers adapted to store variables modified during execution of the program.

21. (currently amended) A device for validating a multimedia document during implementation of a service offered by a server in a communication network, wherein the service is associated with a service description document, the device comprising:

means for acquiring the multimedia document;

means for extracting a description of abstract constraints associated with a binary multimedia document from the service description document;

means for extracting a content description depending on the abstract constraints associated with the multimedia document; and

means for comparing the content description and the description of the abstract constraints extracted from the service description document.

22. (previously presented) The device according to claim 21, further comprising:

a microprocessor;

a read only memory adapted to store a program for validating the multimedia document; and

a random access memory including registers adapted to store variables modified during execution of the program.

23. - 27. (cancelled).

28. (previously presented) A computer-readable storage medium storing control logic for causing a computer to implement a method of validating a multimedia document in accordance with one of claims 13 to 14.

29. (previously presented) A computer-readable storage medium storing control logic for causing a computer to implement a method of producing a request according to claim 12.

30. - 31. (cancelled).

32. (previously presented) The method according to claim 5, wherein the abstract constraints are represented in a XML-Schema language or in a Relax-NG language.

33. (previously presented) The method according to claim 6, wherein the attributes are represented in a XML-Schema language.

34. (previously presented) The method according to claim 8, wherein the description of the abstract constraints is represented in a Schematron language.

35. (new) The method according to claim 13, further comprising:

extracting a Moving Picture Experts Group 7 (MPEG7) description associated with a binary multimedia document;

comparing said MPEG7 description and the description of the abstract constraints;
reiterating the extracting step, if a characteristic of the MPEG7 description is missing;

extracting said characteristic from the binary multimedia document; and
adding said characteristic to the MPEG7 description.